IS 6636 (1972): Hood for Air Pipes of Ships' Piping Systems
[TED 17: Shipbuilding]

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(Reaffirmed 2002)

Indian Standard

SPECIFICATION FOR HOOD FOR AIR PIPES OF SHIPS' PIPING SYSTEMS

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INDIAN STANDARDS INSTITUTION
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 1

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SPECIFICATION FOR HOOD FOR AIR PIPES OF SHIPS' PIPING SYSTEMS

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Indian Standard

SPECIFICATION FOR HOOD FOR AIR PIPES OF SHIPS' PIPING SYSTEMS

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 4 September 1972, after the draft finalized by the Shipbuilding Sectional Committee had been approved by the Marine, Cargo Movement and Packaging Division Council.

0.2 Air pipes are a necessary fitting to all tanks on boardships irrespective of the type of cargo carried in these tanks and to coffer-dams. These pipes have to be led to the main deck and covered by a hood. There are numerous types of hoods used in the shipbuilding industry. This standard covers only the popular type which is economical and easy to produce.

0.3 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard covers the material requirements and dimensions for hoods used with air pipes in the ships' piping systems.

2. DESCRIPTION

2.1 Hoods are fitted to the ends of air pipes on open decks. Air pipes from oil tanks are fitted with wire cloth diaphragm. The wire cloth diaphragm gives adequate protection against fire. The air pipe hood relieves the excess pressure while filling and the formation of vacuum when the tanks are being pumped out.

2.2 The hood is cylindrical and is guided, while lifting, by three guide plates, equally spaced, welded to the air pipe end (*see* figure in Table 1). The corners of the guide plate welded to the air pipe should be rounded off so as to avoid sticking of the hood while lifting. Further, a segment

*Rules for rounding off numerical values (*revised*).

with a slot is welded to the pipe end. The guide bolt, screwed to the hood, enters the slot in the segment and the end of the bolt is clear off the pipe. The mouth of the air pipe is closed by a wire cloth diaphragm. The wire cloth is retained in position by means of four clips equally spaced and secured to the pipe by screws. In the closed position the hood rests on the flange welded to the pipe end.

2.2.1 Four semicircular holes are provided at the bottom of the hood and are intended for relieving the vacuum formed when tanks are being pumped out. In case the hood is not lifted during filling, the excess pressure build up in the airpipe, lifts the hood and thus the pressure build up is prevented. The weight of the hood has necessarily to be such as to be able to lift against the predetermined build up of pressure in the air pipe. The annular area of the hood should be equal to the internal area of the pipe to which it is attached.

2.3 With water tanks and coffer-dams, the wire cloth diaphragm on the mouth of the pipe may be omitted.

3. MATERIAL

3.1 The hood for air pipe shall be of steel tubes, heavy type according to IS : 1161-1968*.

3.2 The hood for air pipe shall also be fabricated of 6 mm thick steel plate conforming to IS : 226-1969† or IS : 2062-1969‡ or IS : 3039-1965§.

3.3 The air pipe shall be of steel tubes, heavy type, according to IS : 1239 (Part I)-1968||.

3.4 The wire cloth used for hoods for air pipe shall conform to IS: 1568-1970¶.

3.5 Where galvanizing is specified it shall be done only after complete fabrication of the parts and shall comply with IS : 4736-1968**.

3.6 Hoods attached to air pipes leading from water tanks shall be galvanized.

4. SHAPE AND DIMENSIONS

4.1 The shape and dimensions of the hoods shall conform to Table 1.

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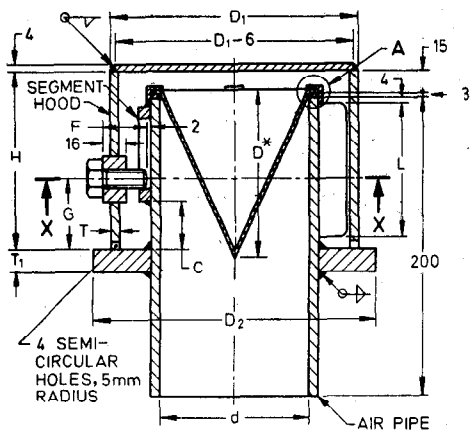
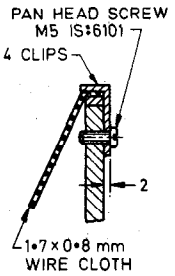
*Specification for steel tubes for structural purposes (*second revision*).
†Specification for structural steel (standard quality) (*fourth revision*).
‡Specification for structural steel (fusion welding quality) (*first revision*).
§Specification for structural steel (shipbuilding quality).
||Specification for mild steel tubes, tubulars and other wrought steel fittings: Part I Mild steel tubes (*second revision*).
¶Specification for wire cloth for general purposes (*first revision*).
**Specification for hot-dip zinc coatings on steel tubes.

TABLE 1 DIMENSIONS FOR HOOD FOR AIR PIPE

(*Clauses* 2.2 *and* 4.1)

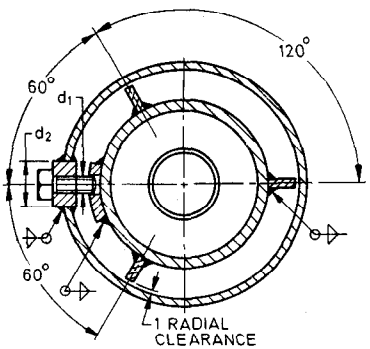
All dimensions in millimetres.



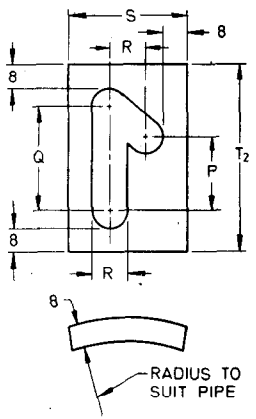


DETAIL AT A

*D=OUTSIDE DIA OF AIR PIPE



SECTION XX



DETAIL OF SEGMENT

Nominal Bore d	C	D_1	D_2	d_1	d_2	F	G	H	L	P	Q	R	S	T	T_1	T_2
50	20	114·3	130	M 10	25	32	34	90	60	12	20	10	36	5·4	14	46
65	35	139·7	160	M 10	25	33	49	115	85	22	30	10	36	5·4	14	56
80	35	139·7	160	M 10	25	30	49	115	85	22	30	10	36	5·4	16	56
100	38	168·3	190	M 12	30	30	53	125	90	25	35	12	40	5·4	16	63
125	38	219·1	240	M 12	30	42	53	125	95	25	35	12	40	5·9	18	63
150	48	244·5	265	M 12	30	42	63	135	105	25	35	12	40	5·9	18	63

5. TOLERANCE

5.1 The tolerance on dimensions shall be according to coarse series of IS : 2102-1969*.

6. DESIGNATION

6.1 The hood shall be designated by its name, nominal size and the number of this standard.

Example:

A hood fitted to an air pipe of nominal size 65 shall be designated as:

Hood for Air Pipe 65 IS : 6636

*Allowable deviations for dimensions without specified tolerances (*first revision*).

INDIAN STANDARDS

ON

VENTILATION

IS:

3271-1966 General requirements for steel cowl ventilators with detachable components
3272-1966 Dimensions for oval-head steel cowl ventilators
3273-1966 Dimensions for circular-head steel cowl ventilators
3274-1967 Gooseneck ventilators—welded type
3275-1966 Dimensions for accessories for steel cowl ventilators
3276-1966 Dimensions for mechanical turning arrangements for steel cowl ventilators
3278-1966 Dimensions for detachable foaming covers and wire mesh grids for steel cowl ventilators
3279-1966 General requirements for mushroom ventilators
3280-1966 Dimensions for mushroom ventilators with adjustable head—welded type
3281-1966 Dimensions for mushroom ventilators with fixed head—welded type
3282-1966 Dimensions for mushroom ventilators with adjustable head—cast iron type
3283-1966 Dimensions for mushroom ventilators with adjustable head—cast iron type with provision for passage of light
3733-1966 Conventional signs and symbols for ship ventilation systems
3940-1966 Torpedo ventilators
3941-1966 Cabin ventilators
4881-1968 Code of practice for design of shipboard mechanical ventilation trunking
5118-1969 Constructional details of ventilation trunking for shipboard use
5858 (Part I)-1970 Accessories to mechanical ventilation systems on board ships: Part I Non-return valves
5858 (Part II)-1970 Accessories to mechanical ventilation systems on board ships: Part II Smoke protecting flap valves
5858 (Part III)-1970 Accessories to mechanical ventilation systems on board ships: Part III Control dampers
5976-1971 Ships' punkah-louvres

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